

A1 Cont.

In U.S. Pat. No. 5, 850,415, multiple digital signals are encoded on an FM signal via amplitude modulation. The signal-to-noise ratio within the allotted frequency band is large enough to allow transmission of these additional signals. The method combines FM signals having a high signal-to-noise ratio with a modulation technique called frequency sliding to add digital channels. This technique is directed to adding digital information to a frequency-modulated carrier via amplitude modulation. Neither a repetitive noise nor a pseudo-noise source is used as a code upon which a signal is imposed.—”

CLAIMS

Please rewrite claim 1 as follows:

1. (Amended) A reception method for detecting at least one information signal modulated on at least one repetitive waveform, the method comprising:
 - coupling the repetitive waveform out of a communication channel, the repetitive waveform having at least one predetermined period, and
 - combining at least a first time-domain sample of at least one of the repetitive waveforms with at least a second time-domain sample of at least one of the repetitive waveforms to generate at least one coherence signal indicative of the at least one information signal[.], and
the improvement comprising:
 - at least one time-offset step incorporated into the step of combining the time-domain portions, the at least one time-offset step adapted to provide the time-domain portions with at least one time offset relative to at least one signal period of at least one of the repetitive waveforms.
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Claim 2, line 1, change "is" to "—includes—."

Claim 5, line 1, insert “—at least one—” before “repetitive”.

Claim 5, line 1, change "has" to "—have—". *JL*

Claim 6, line 1, change "are" to "—include—".

Claim 8, line 1, change "by" to "—with—".

Claim 9, line 2, change "time domain samples" to "—time-domain portions—".

Claim 9, line 3, change "sample" to "—portion—".

Claim 11, line 1, change "samples" to "—portions—".

Claim 11, line 2, change "samples" to "—portions—".

Claim 12, line 1, change "samples" to "—portions—".

Claim 12, line 2, change "samples" to "—portions—".

Claim 14, line 2, change "samples" to "—portions—".

Please rewrite claim 15 as follows:

15. (Amended) A reception method for separating information signals modulated onto a plurality of repetitive waveforms having different periods, the method comprising:

- coupling the waveforms out of a communication channel,
- generating a plurality of time-domain samples of the received waveforms [having at least one time offset relative to at least one of the signal periods], [and]
- correlating the plurality of time-domain samples[.]

the improvement comprising:

- at least one time-offset step incorporated into the step of generating a plurality of time-domain samples, the at least one time-offset step adapted to provide the time-domain samples with at least one time offset relative to at least one signal period of at least one of the repetitive waveforms.

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Please rewrite claim 19 as follows:

19. (Amended) The reception method of claim 15 wherein the combining step provides for combining the time-domain samples that are [combined are] consecutive samples of the repetitive waveform.

Please rewrite claim 20 as follows:

20. (Amended) The reception method of claim 15 wherein the combining step provides for combining the time-domain samples that [are combined] are non-consecutive samples of the repetitive waveform.

Please rewrite claim 21 as follows:

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21. (Amended) In an electromagnetic-wave communication system, a transmission method for transmitting at least one information signal modulated on at least one repetitive waveform, the method comprising:
- [generating at least one repetitive waveform having at least one predetermined period,]
 - modulating at least one information signal onto at least one of the waveforms, [and]
 - coupling the waveforms into a communication channel[.],
the improvement comprising:
 - generating the at least one repetitive waveform, the at least one waveform having at least one predetermined period.

Claim 23, line 1, replace “is characterized by” with “—includes—”.

Claim 24, line 1, replace “is characterized by” with “—includes—”.

Please rewrite claim 26 as follows:

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26. (Amended) The transmission method of claim 21 wherein the generating step is adapted to generate [each of] a plurality of [the] repetitive waveforms having [has a] different periods [period].

Please rewrite claim 28 as follows:

28. (Amended) A transmitter for transmitting at least one code-length division multiple access signal, the transmitter comprising:

- [a waveform generator capable of generating a repetitive waveform having at least one predetermined period,]
- a modulator capable of modulating at least one information signal onto at least one portion of at least one period of the repetitive waveform, [and]
- a coupler capable of coupling the modulated information signal into a communication channel[.]
the improvement comprising:
- a repetitive-waveform generator adapted to generate the repetitive waveform having at least one predetermined period.

Claim 30, line 1, replace “generates” with “—is adapted to generate—”.

Claim 31, line 1, replace “generates” with “—is adapted to generate—”.

Claim 32, line 1, replace “generates” with “—is adapted to generate—”.

Claim 33, line 1, replace “generates” with “—is adapted to generate—”.

Claim 34, line 1, replace “generates” with “—is adapted to generate—”.

Please rewrite claim 35 as follows:

35. (Amended) A receiver for receiving at least one code-length division multiple access signal, the receiver comprising:

- an input coupler coupled to a communication channel capable of receiving a plurality of repetitive waveforms having at least one predetermined period, and
- a combiner coupled to the input coupler, the combiner capable of combining [providing] a plurality of time-domain samples of the received waveforms[, at least one of the samples being time offset relative to the at least one predetermined period, the combiner capable of combining the time-domain samples] for generating a coherence signal indicative of at least one information signal modulated onto at least one of the noise signals[.].

the improvement comprising:

- a time-offset system coupled to the combiner adapted to provide at least one of the samples with at least one time offset relative to the at least one predetermined period of the repetitive waveforms.

Claim 37, line 1, replace “generates” with “—is adapted to combine—”. *N.E.*

Claim 38, line 1, replace “generates” with “—is adapted to combine—”. *N.E.*

Claim 39, line 1, replace “generates” with “—is adapted to combine—”. *N.E.*

Claim 40, line 1, replace “is” with “—includes—”. /

Please rewrite claim 41 as follows:

41. The receiver of claim 39 wherein the interferometer includes [is] at least one of a set comprising a Michelson interferometer and a Mach-Zender interferometer.

Please add the following new claims:

~~42.~~ A remote-sensing method for detecting changes to at least one repetitive waveform, the method comprising:

- coupling the repetitive waveform out of a communication channel, the repetitive waveform having at least one predetermined period, and
- combining at least a first time-domain portion of at least one of the repetitive waveforms with at least a second time-domain portion of at least one of the repetitive waveforms to generate at least one coherence signal,

the improvement comprising:

- at least one time-offset step incorporated into the step of combining the time-domain portions, the at least one time-offset step adapted to provide the time-domain portions with at least one time offset relative to at least one signal period of at least one of the repetitive waveforms.

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~~43.~~ A remote-sensing receiver for receiving at least one repetitive waveform, the receiver comprising:

- an input coupler coupled to a communication channel capable of receiving a plurality of repetitive waveforms having at least one predetermined period, and
- a combiner coupled to the input coupler, the combiner capable of combining a plurality of time-domain samples of the received waveforms for generating a coherence signal,

the improvement comprising:

- a time-offset system coupled to the combiner adapted to provide at least one of the samples with at least one time offset relative to the at least one predetermined period of the repetitive waveforms.

44. The remote-sensing receiver recited in claim 43 further comprising:

- a transmitter adapted to transmit at least one repetitive waveform, the transmitter comprising:
- a repetitive-waveform generator adapted to generate the repetitive waveform having at least one predetermined period, and

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